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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/579,137	05/30/2000	Teruo Okada	192523US2	1270

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EXAMINER

PERSINO, RAYMOND B

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/579,137	OKADA ET AL.	
	Examiner	Art Unit	
	Raymond B. Persino	2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,11-13 and 15-19 is/are rejected.
- 7) ☒ Claim(s) 3,10 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 May 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/21/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over JONES (US 6,606,506 B1) in view of the Operating Instructions for the Sony CDP-X77ES Compact Disc Player (hereinafter referred to as CDP-X77ES).

Regarding claim 1, JONES discloses an audio system, comprising: a head attachment audio unit having a reproduction portion configured to reproduce audio information stored in a memory portion and an output portion configured to output sound according to the reproduced audio information; and a remote control unit configured to transmit a control signal that controls an operation mode for audio reproduction of the reproduction portion of the head attachment audio unit (figure 2 and column 3 line 9 to column 5 line 65). However, JONES does not explicitly disclose that the remote control has a plurality of operation buttons, each operation button configured to implement a corresponding one of a plurality of operation modes for audio reproduction, the plurality of operation modes comprising a start reproducing audio information mode, a stop reproducing audio information mode, a reversing mode and a fast forwarding mode. CDP-X77ES discloses a remote control having a plurality of operation buttons, each

operation button configured to implement a corresponding one of a plurality of operation modes for audio reproduction, the plurality of operation modes comprising a start reproducing audio information mode, a stop reproducing audio information mode, a reversing mode and a fast forwarding mode (see pages 16 and 17). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for the remote control of JONES to include CDP-X77ES's plurality of operation buttons with above stated functions. Providing a remote control with a plurality of operation buttons with the above stated functions enhances the usefulness of the remote to the user by allowing the user to control additional functions that enhance the audio playback experience.

3. Claims 1, 4-6, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over BUSH (US 6,466,677 B1) in view of VOGEL (GB 2326788 A) and further in view of CDP-X77ES.

Regarding claim 1, BUSH discloses an audio system, comprising: a head attachment audio unit having a reproduction portion configured to reproduce audio information stored in a memory portion and an output portion configured to output sound according to the reproduced audio information (column 2 lines 47-61 and column 3 lines 10-44). However, BUSH does not disclose a remote control unit configured to transmit a control signal that controls an operation mode for audio reproduction of the reproduction portion of the head attachment audio unit. VOGEL discloses a remote control unit configured to transmit a control signal that controls an operation mode for a radio in a head attachment audio unit (pages 2 and 3). Therefore it would have been

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obvious to a person of ordinary skill in the art at the time the invention was made to modify BUSH to have the controls be remote. The invention of BUSH would benefit from the teaching of VOGEL. Having the controls located on the head attachment audio unit is inconvenient in that it requires that the user either remove the head attachment audio unit to control it or memorize the location of the controls on the head attachment audio unit. Providing a remote control overcomes the problem by allowing control of the head attachment audio unit to be effectuated without removing the head attachment audio unit or memorizing the location of the controls on the head attachment audio unit. However, while VOGEL does teach of transmitting a control signal that controls an operation mode for radio neither BUSH nor VOGEL disclose that the remote control has a plurality of operation buttons, each operation button configured to implement a corresponding one of a plurality of operation modes for audio reproduction, the plurality of operation modes comprising a start reproducing audio information mode, a stop reproducing audio information mode, a reversing mode and a fast forwarding mode. Since BUSH's invention includes a reproduction portion configured to reproduce audio information stored in a memory portion, a modification of BUSH to include the remote of VOGEL would require that the control signals control the reproduction portion configured to reproduce audio information stored in a memory portion. CDP-X77ES discloses a remote control having a plurality of operation buttons, each operation button configured to implement a corresponding one of a plurality of operation modes for audio reproduction, the plurality of operation modes comprising a start reproducing audio information mode, a stop reproducing audio information mode, a reversing mode and a

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fast forwarding mode (see pages 16 and 17). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify VOGEL's remote control such that it transmits a control signal that controls an operation mode of BUSH 's reproduction portion configured to reproduce audio information stored in a memory portion. Providing a remote control with a plurality of operation buttons with the above stated functions enhances the usefulness of the remote to the user by allowing the user to control additional functions that enhance the audio playback experience.

Regarding claim 4, see the rejection of claim 1 regarding the subject matter this claim is dependant upon. VOGEL further discloses that the remote control unit is attached with a wrist-belt (pages 5 and 6).

Regarding claim 5, see the rejection of claim 1 regarding the subject matter this claim is dependant upon. VOGEL further discloses that the remote control unit comprises a mechanism of attaching and detaching the remote control unit to and from a watchband (pages 5 and 6).

Regarding claim 6, see the rejection of claim 1 regarding the subject matter this claim is dependant upon. VOGEL further discloses that the remote control unit is in a shape of a ring. When a watchband is in use is in the shape of a ring. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for a remote control unit to be in the shape of a ring.

Regarding claim 11, see the rejection of claim 1 regarding the subject matter this claim is dependant upon. BUSH further discloses that the memory portion is a memory

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medium freely attachable and detachable to and from the head attachment audio unit body (column 2 lines 51-61).

Regarding claim 12, see the rejection of claim 1 regarding the subject matter this claim is dependant upon. BUSH further discloses that the memory portion is a solid memory disposed to the head attachment audio unit body (column 2 lines 51-61).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over BUSH (US 6,466,677 B1) in view of VOGEL (GB 2326788 A) and CDP-X77ES and further in view of an examiner's official notice.

Regarding claim 2, see the rejection of claim 1 regarding the subject matter this claim is dependant upon. However, the prior art cited in the rejection of the parent claim disclose that the remote control unit transmits the control signal over radio.

Nevertheless, the examiner takes official notice that it was known at the time of the invention for a remote control unit to transmit a control signal over radio. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for a remote control unit to transmit a control signal over radio. The use of either IR or radio to transmit a control signal from a remote is routine engineering decision predicated a number of factors including cost, line of sight issues, privacy, and power.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over BUSH (US 6,466,677 B1) in view of VOGEL (GB 2326788 A) and CDP-X77ES and further in view of ANDERSON (US 5,316,249 A).

Regarding claim 7, see the rejection of claim 1 regarding the subject matter this claim is dependant upon. However, the prior art cited in the rejection of the parent claim does not disclose that the remote control unit is attached with an adhesive tape. However, ANDERSON discloses a remote control that is stuck with an adhesive (column 4 lines 50-54). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an adhesive on the remote control so as to stick it to something. ANDERSON would enhance the teaching of the prior art cited in the rejection of the parent claim by allowing the remote to stick to a surface. This will result in the remote being less likely to be misplaced.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over BUSH (US 6,466,677 B1) in view of VOGEL (GB 2326788 A) and CDP-X77ES and further in view of FOSTER (US 5,587,704 A).

Regarding claim 8, see the rejection of claim 1 regarding the subject matter this claim is dependant upon. However, the prior art cited in the rejection of the parent claim does not disclose that the remote control unit is a pendant type remote control unit. FOSTER discloses a remote control unit attached with a chain (column 3 lines 59-63). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for a remote control unit to be attached with a chain. The prior art cited in the rejection of the parent claim would benefit from the teaching of FOSTER. FOSTER's invention may appear to be directed toward art unrelated to that of the prior art cited in the rejection of the parent claim. However, FOSTER's teaching is directed toward the remote activation of an audio system. As such the examiner finds the

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remote control of an audio system whether the audio is outputted to a headphone or loudspeaker to be analogous art. Further, motivation to modify the remote control of the prior art cited in the rejection of the parent claim to be a pendant type remote control unit is that such a type of remote control allows for one to quickly reach for the remote, as it will be in close proximity. Further, a remote control unit attached with a chain helps reduce the likelihood that the remote control will be misplaced.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over BUSH (US 6,466,677 B1) in view of VOGEL (GB 2326788 A) and CDP-X77ES and further in view of HUANG et al (US 6,437,836 A).

Regarding claim 9, see the rejection of claim 1 regarding the subject matter this claim is dependant upon. However, the prior art cited in the rejection of the parent claim does not disclose that the remote control unit is one body with a portable information terminal. HUANG et al discloses a remote control unit is one body with a portable information terminal [PDA] (column 3 line 56 to column 4 line 6). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for a remote control unit to be one body with a portable information terminal. Incorporating a portable information terminal with a remote allows for an extended functionality remote control. Thus the prior art cited in the rejection of the parent claim would benefit from the teaching of HUANG et al.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over BUSH (US 6,466,677 B1) in view of VOGEL (GB 2326788 A) and CDP-X77ES and further in view of an examiner's official notice.

Regarding claim 13, see the rejection of claim 1 regarding the subject matter this claim is dependant upon. However, the prior art cited in the rejection of the parent claim does not disclose that the head attachment audio unit further comprises an input terminal configured to input an audio signal. The examiner takes official notice that it was known to have a headphone device with an input terminal configured to input an audio signal. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for the head attachment audio unit to further comprise an input terminal configured to input an audio signal. Having an input terminal allows the head attachment audio unit to function as headphones for use with an external audio signal. Thus the prior art cited in the rejection of the parent claim would benefit from the modification.

9. 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over BUSH (US 6,466,677 B1) in view of VOGEL (GB 2326788 A) and CDP-X77ES and further in view of KITAO et al (US 6,124,804 A).

Regarding claims 15 and 16, see the rejection of claim 1 regarding the subject matter this claim is dependant upon. However, the prior art cited in the rejection of the parent claim does not disclose a response portion configured to return a response signal corresponding to the control signal to the remote control unit; and the remote control unit further comprises a reception portion configured to receive the response signal; wherein the remote control unit further comprises a display portion configured to display information visually based on the response signal received by the reception portion. KITAO et al discloses a response portion configured to return a response

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signal corresponding to the control signal to the remote control unit; and the remote control unit further comprises a reception portion configured to receive the response signal; wherein the remote control unit further comprises a display portion configured to display information visually based on the response signal received by the reception portion (column 10 line 8 to column 11 line 6). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have a response portion configured to return a response signal corresponding to the control signal to the remote control unit; and the remote control unit further comprises a reception portion configured to receive the response signal; wherein the remote control unit further comprises a display portion configured to display information visually based on the response signal received by the reception portion. Incorporating a display on the remote control to display information based on response signal received by a reception portion allows the user of the remote to become aware of the response information (see KITAO et al, column 11 lines 1-12). Further, the headphone of BUSH includes a display, however the display would not be visible to the user when the headphone is placed on the head of the user. Thus locating the display on the remote would enable the user to see the display while the headphone is in use and get real time indication of the status of the headphone system. Thus motivation to have the display be on the remote is similar to that for having the controls be remote (see the rejection of claim 1). Thus the prior art cited in the rejection of the parent claim would benefit from the teaching of KITAO et al.

Regarding claim 17, see the rejection of claim 15 regarding the subject matter this claim is dependant upon. VOGEL further discloses that the remote control unit comprises; a control button configured to implement control of reproduction of the audio information; a transmitter configured to transmit, when the control button is pushed down (see figure 5). However, VOGEL does not disclose that the remote includes control signal corresponding to the pushed control button and configured to receive the response signal corresponding to the control signal and a display portion configured to display information visually based on the response signal received by the transmitter/receiver. KITAO et al discloses a remote control unit comprising a display portion for visually displaying information based on response signal received by the transmitter/receiver (column 10 line 8 to column 11 line 6). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for a remote control unit to comprise a display portion for visually displaying information based on response signal received by the transmitter/receiver. Incorporating a display on the remote control to display information based on response signal received by a reception portion allows the user of the remote to become aware of the response information (see KITAO et al, column 11 lines 1-12). Further, the headphone of BUSH includes a display, however the display would not be visible to the user when the headphone is placed on the head of the user. Thus locating the display on the remote would enable the user to see the display while the headphone is in use and get real time indication of the status of the headphone system. Thus motivation to have the display be on the remote is similar to that for having the controls be remote (see the

rejection of claim 1). Thus the prior art cited in the rejection of the parent claim would benefit from the teaching of KITAO et al.

Regarding claim 18, see the rejection of claim 17 regarding the subject matter this claim is dependant upon. VOGEL further discloses the transmitter of the remote control unit is disposed on a same face as on which the control button is disposed (pages 7 and 8).

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over BUSH (US 6,466,677 B1), VOGEL (GB 2326788 A), an CDP-X77ES, KITAO et al (US 6,124,804 A) and further in view of an examiner's official notice with evidence provided by HOLLING et al (US 5,378.874 A).

Regarding claim 19, see the rejection of claim 17 regarding the subject matter this claim is dependant upon. However, the prior art cited in the rejection of the parent claim does not disclose that the remote control unit comprises an ON/OFF control portion configured to control ON/OFF of a main power source of the remote control unit body according to an input situation from the control button. Nevertheless, the examiner takes official notice that it was known in the art at the time the invention was made to have a remote control unit comprise an ON/OFF control portion configured to control ON/OFF of a main power source of the remote control unit body according to an input situation from the control button. The examiner provides as evidence HOLLING et al which discloses a remote control with an automatic shut-off feature which extends the life of the batteries used to power the remote by turning off unnecessary circuitry, such as the remote receiver and placing the microcomputer in "sleep mode" between

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transmissions (column 8 lines 51-61). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have a remote control unit comprises an ON/OFF control portion for controlling ON/OFF of a main power source of the remote control unit body according to an input situation from the control button. Motivation to do so is that it reduces the power drain on the battery thus extending battery life.

Allowable Subject Matter

11. Claims 3, 10 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
12. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 3, see the rejection of claim 1 regarding the subject matter this claim is dependant upon. VOGEL discloses that the remote control unit comprises a transmitter configured to transmit the control signal (column 5 line 66 to column 6 line 8). Although, neither SHENNIB, JONES, BUSH, CDP-X77ES nor VOGEL disclose that the transmitter comprising an antenna for transmitting electromagnetic waves; and a shield unit having an opening at a prescribed position thereof and the antenna being inserted therein. Nevertheless the examiner is of the opinion that the transmitter comprising an antenna for transmitting electromagnetic waves is inherent if not obvious. However in the context of the entirety of the subject matter associated with the claim,

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the examiner has not found prior art teaching it to be inherent or obvious to have a shield unit having an opening at a prescribed position thereof and the antenna being inserted therein. Therefore the applicant's invention of claim 3 comprises a unique combination of subject matter that is neither taught nor suggested by the prior art.

Regarding claim 10, see the rejection of claim 9 regarding the subject matter this claim is dependant upon. However, neither SHENNIB, JONES, BUSH, VOGEL, CDP-X77ES nor HUANG et al disclose that the audio information is downloaded through the portable information terminal to the memory portion. Further, in the context of the entirety of the subject matter associated with the claim, the examiner has not found prior art teaching it to be inherent or obvious to have audio information being downloaded through the portable information terminal to the memory portion. Therefore the applicant's invention of claim 10 comprises a unique combination of subject matter that is neither taught nor suggested by the prior art.

Regarding claim 14, see the rejection of claim 1 regarding the subject matter this claim is dependant upon. However, neither SHENNIB, JONES, BUSH, CDP-X77ES nor VOGEL disclose that the head attachment audio unit comprises a mechanism capable of attaching and detaching the remote control unit. Further, in the context of the entirety of the subject matter associated with the claim, the examiner has not found prior art teaching it to be inherent or obvious to have a head attachment audio unit comprising a mechanism capable of attaching and detaching the remote control unit. Therefore the applicant's invention of claim 14 comprises a unique combination of subject matter that is neither taught nor suggested by the prior art.

Response to Arguments

13. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond B. Persino whose telephone number is (703) 308-7528. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on (703) 308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Raymond B. Persino
Examiner
Art Unit 2682

FP

RP


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

2/21/05